STANDARDS AND LEARNING OUTCOMES FOR UNDERGRADUATE RESEARCH PROJECTS

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ABSTRACT

Undergraduate research projects are increasingly being incorporated as assessed components, into a range of degrees, both those aimed at elite students and in standard BSc degrees. While students and staff are generally positive about such experiences, the literature shows that students report a wide range of learning outcomes and that the student experience is very dependent on the supervisor. This immediately raises issues of equity and standards; each research project is unique and how each one compares to other research projects or normal courses can be problematic. In principle, clearly articulated learning outcomes can help implement benchmarking or moderation processes; however if these learning outcomes focus on advances in disciplinary knowledge, methods and skills, comparison across sub-disciplines (let alone disciplines) remains hard. We propose an alternative, complementary focus for assessing learning: the development of students' understanding of the processes and practice of science, together with generic skills such as critical thinking, elements which should be developed in all projects.

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